

Cover Sheet

Lead Federal Agency: U.S. Department of Energy (DOE)

Cooperating Agencies: U.S. Department of the Interior (Bureau of Land Management, Bureau of Reclamation, and U.S. Fish and Wildlife Service); Benton, Franklin, and Grant counties; and the City of Richland, Washington

Consulting Tribal Governments: Nez Perce Tribe Department of Environmental Restoration and Waste Management and the Confederated Tribes of the Umatilla Indian Reservation

Title: *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS), Hanford Site, Richland, Washington

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Abstract: The DOE prepared this *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS) to evaluate the potential environmental impacts associated with implementing a comprehensive land-use plan for the Hanford Site for at least the next 50 years. With the exception of the required No-Action Alternative, each of the six alternatives presented represents a Tribal, Federal, state, or local agency's Preferred Alternative. Each alternative is presented separately. The DOE's Preferred Alternative anticipates multiple uses of the Hanford Site, including: consolidating Waste Management operations in the Central Plateau, allowing industrial development in the eastern and southern portions of the Site, increasing recreational access to the Columbia River, and expanding the Saddle Mountain National Wildlife Refuge to include all of the Wahluke Slope and ALE (managed by the U.S. Fish and Wildlife Service).

The Hanford Site occupies 1,517 square kilometers (km²) (586 square miles [mi²]) in southeastern Washington. Today, the Hanford Site has diverse missions associated with environmental restoration, Waste Management, and Science and Technology. These missions have resulted in the growing need for a comprehensive, long-term approach to planning and development for the Site.

Public Comments: The Final EIS is a revision of the *Revised Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-EIS) published in April 1999 and responds to comments received in writing and at public hearings. The Final EIS is being transmitted to commenting agencies and individuals, made available to the public, and filed with the Environmental Protection Agency (EPA). A DOE decision on proposed actions will not be made earlier than 30 days after EPA issues a public notice of availability for the Final EIS. The DOE will issue a Record of Decision (ROD) published in the *Federal Register*.

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Foreword¹

Objective of the EIS

This Final HCP EIS was prepared by the Department of Energy (DOE) and its nine cooperating and consulting agencies to develop a comprehensive land-use plan (CLUP) for the Hanford Site. The DOE will use the Final HCP EIS as a basis for a Record of Decision (ROD) on a CLUP for the Hanford Site. While development of the CLUP will be complete with release of the HCP EIS ROD, full implementation of the CLUP is expected to take at least 50 years.

Implementation of the CLUP will begin a more detailed planning process for land-use and facility-use decisions at the Hanford Site. The DOE will use the CLUP to screen proposals. Eventually, management of Hanford Site areas will move toward the CLUP land-use goals. This CLUP process could take more than 50 years to fully achieve the land-use goals.

The final CLUP will consist of the following:

A Final Land-Use Map, depicting the desired future patterns of land use on the Hanford Site. This map will be one of the alternative land-use maps presented in the EIS, or a map that combines features of several of the alternatives maps such as the new Preferred Alternative based on public comment.

Land-Use Definitions, describing the purpose, intent, and principal use(s) of each land-use designation on the final CLUP map.

Land-Use Policies, directing land-use actions. These policies will help to ensure that individual actions of successive managers collectively advance the adopted CLUP map, goals, and objectives over time.

Land-Use Implementing Procedures, including:

- C Administrative procedures for reviewing and approving requests for use of Hanford Site lands.
- C A Site Planning Advisory Board (SPAB), consisting of representatives from DOE, the cooperating agencies with land-use authority, and the affected Tribes, to evaluate and make recommendations on development proposals and land-use requests. It is anticipated that some requested activities will be permitted under the plan, but that others will need to be modified or required to incorporate mitigation to reduce potential impacts.
- C New or revised "area" and "resource" management plans for the Site aligned and coordinated with the new land-use maps, policies and procedures of the adopted CLUP.

¹Vertical lines in the margins like these to the right indicate where changes have been made since the publication of the Revised Draft HRA-EIS in April, 1999.

1 **Integration of the CLUP**

2
3 The process described above would be integrated with existing DOE land-use review
4 procedures (e.g., the Draft *Biological Resources Management Plan* and the Draft *Cultural*
5 *Resources Management Plan*). The final CLUP map, policies, and implementing procedures
6 would be integrated with and addressed at the threshold decision points of all authorizations,
7 operational plans, and actions, including contracts and budget proposals that directly or indirectly
8 affect land use so that they would not create unintentional conflicts with the CLUP, or fail to
9 advance CLUP objectives where the opportunity and ability to do so exists.

10
11 The DOE would have the final approval of all land-use decisions taking place on the
12 Hanford Site while under DOE responsibility. The DOE Richland Operations Office would
13 coordinate review of Hanford land development and land-use requests and determine, with input
14 from the SPAB, whether a request represents an *allowable use*, *special use*, or whether the
15 request would require an *amendment* to the CLUP.

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17
18 **Cooperating Agencies and Consulting Tribal Governments**

19
20 The nine cooperating agencies and consulting Tribal governments that participated in the
21 preparation of this Final HCP EIS are the U.S. Department of the Interior (Bureau of Land
22 Management [BLM], Bureau of Reclamation [BoR], and the U.S. Fish and Wildlife Service
23 [USFWS]); the City of Richland, Washington; Benton, Franklin, and Grant counties; the Nez
24 Perce Tribe, Department of Environmental Restoration and Waste Management; and the
25 Confederated Tribes of the Umatilla Indian Reservation (CTUIR).

26
27
28 **The HCP EIS Alternatives**

29
30 Six land-use alternatives (including the No-Action) were developed by the nine
31 Cooperating Agencies and Consulting Tribal Governments using common land-use designations
32 and definitions. With the exception of the No-Action Alternative, each of the six alternatives
33 presented represents a Tribal, Federal, state, or local agency's Preferred Alternative.

34
35 **No-Action Alternative.** This alternative, developed by DOE in compliance with the *National*
36 *Environmental Policy Act of 1969* (NEPA), presents the current status of land use at the Hanford
37 Site and represents no change from current land-management processes or intergovernmental
38 relationships with the cooperating agencies. Specific land-use decisions for Hanford would
39 continue to be made under the NEPA process and the Tri-Party Agreement, based on the
40 current *Hanford Strategic Plan* (Mission Plan) and on a project-by-project basis.

41
42 **DOE's Preferred Alternative.** DOE's Preferred Alternative anticipates multiple uses of the
43 Hanford Site, including anticipated future DOE missions, non-DOE Federal missions, and other
44 public and private-sector land uses. The DOE Preferred Alternative would do the following:

45
46 C For the *cleanup mission* – Consolidate Waste Management operations on 50.1 km²
47 (20 mi²) in the Central Plateau of the Site.

48
49 C For the *economic development mission* – Allow industrial development in the eastern
50 and southern portions of Hanford and increase recreational access to the Columbia
51 River.

1 C *For the Natural Resource Trustee mission* – Expand the existing Saddle Mountain
2 National Wildlife Refuge to include all of the Wahluke Slope (North Slope) of the Site,
3 consistent with the 1994 Hanford Reach EIS and 1996 Hanford Reach ROD; place the
4 Fitzner/Eberhardt Arid Lands Ecology Reserve (ALE Reserve) under USFWS
5 management by permit so it may be included in the overlay wildlife refuge, add McGee
6 Ranch to the overlay wildlife refuge; and ensure that, where practicable, withdrawn BLM
7 lands are clean enough to support BLM’s multiple-use mandate.
8

9 ***Alternative One (Natural Resource Trustee).*** The USFWS’s alternative emphasizes a
10 Federal stewardship role for managing the natural resources at Hanford. This alternative
11 considers these resources in a regional context, and would expand the existing Saddle Mountain
12 National Wildlife Refuge to include all of the Wahluke Slope (North Slope), the Riverlands,
13 McGee Ranch, and the ALE Reserve (e.g., all of the Hanford lands north and east of the
14 Columbia River and west of State Highways 24 and 240). The vision of Alternative One is to
15 conserve the Hanford Site shrub-steppe ecosystem and protect the Hanford Reach of the
16 Columbia River.
17

18 ***Alternative Two (Nez Perce Tribe, Environmental Restoration and Waste Management
19 Department).*** This Nez Perce alternative calls for preservation of natural and cultural
20 resources and traditional Tribal use at the Site. Future DOE missions would be constrained to
21 the Central Plateau, 300 Area, and 400 Area. Both this alternative and Alternative Four
22 (developed by the CTUIR) reflect Tribal visions and views of Tribal members’ treaty rights and
23 traditional Tribal uses of Hanford lands. The Tribes and DOE have “agreed to disagree” on the
24 interpretation of treaty rights on Hanford lands in the interest of moving the EIS process forward.
25 Each party reserves the right to assert its respective interpretation of treaty rights at Hanford.
26

27 ***Alternative Three (Cities and Counties).*** This local governments’ alternative is based on the
28 individual planning efforts of local agencies and organizations including Benton County, Franklin
29 County, Grant County, and the City of Richland. Alternative Three recognizes the potential that
30 land use at the Hanford Site has in relation to economic development. Alternative Three would
31 allow dryland (non-irrigated) agricultural and grazing activities, and irrigated agriculture on the
32 Hanford Site. The land-use designations contained in Alternative Three were developed
33 consistent with local availability of infrastructure, nearness of urban areas, soils capabilities, and
34 current use patterns.
35

36 ***Alternative Four (Confederated Tribes of the Umatilla Indian Reservation, CTUIR).*** This
37 CTUIR alternative calls for preservation of natural resources and areas of religious importance
38 to the CTUIR as well as traditional Tribal use at the Site. Both this alternative and Alternative
39 Two (developed by the Nez Perce Tribe, Environmental Restoration and Waste Management
40 Department) reflect Tribal visions and views of Tribal members’ treaty rights and traditional
41 Tribal uses of Hanford lands. The Tribes and DOE have “agreed to disagree” on the
42 interpretation of treaty rights on Hanford lands in the interest of moving the EIS process forward.
43 Each party reserves the right to assert its respective interpretation of treaty rights at Hanford.
44

45 ***Public Comment***

46
47 The DOE received more than 400 comment letters, 30 E-mails, and 86 transcript
48 comments from four public hearings on the Revised Draft HRA-EIS. The DOE also accepted a
49 binder with 922 endorsements for the Wild and Scenic River (with the inclusion of a Wahluke
50 Wildlife Refuge) that were collected for the Department of the Interior’s Hanford Reach EIS in
51 1994. More than 200 request forms for farmland on the Wahluke Slope (also generated for the
52 Hanford Reach EIS in 1994) were accepted in the same spirit. Each of these signature-

1 gathering efforts were assigned only one comment number. Based on the public comment
2 received, the following changes have been made to the DOE's Preferred Alternative:

- 3
- 4 • All Conservation (Mining and Grazing) has been changed to Conservation (Mining).
- 5 • The National Wildlife Refuge designation (from Alternative One) has been extended to
6 include the ALE Reserve, the Riverlands, and McGee Ranch; and all river islands not in
7 Benton County. The Preferred Alternative clarifies that the refuge will be an overlay
8 wildlife refuge (without a transfer of title from DOE), and that DOE retains the right to
9 mine the ALE insert for cover materials.
- 10 • A railroad right-of-way through the Riverlands portion of the proposed Refuge will be
11 given status as a preexisting condition and included in the proposed USFWS permit to
12 manage the Refuge.
- 13 • The White Bluffs town-site (from Alternatives One and Three) has been added to the
14 Preferred Alternative map as Low-Intensity Recreation to serve as the White Bluffs
15 Memorial.
- 16 • The Low-Intensity Recreation dots (comfort stations) along the river which could
17 eventually serve as anchor points for a river trail from Richland to Vernita Bridge have
18 been moved to ensure that they have both river and road access.
- 19 • A High-Intensity Recreation triangle (from Alternative Three) has been added to the
20 Preferred Alternative map near Horn Rapids Park on the Yakima River
- 21

22 In addition to changes made to the Preferred Alternative, and the identifying of Alternative
23 One as the environmentally preferable alternative, many other changes were made to the
24 document updating items, refining analyses, and correcting errors. Each change in the Final
25 EIS from the Revised Draft EIS is identified by vertical line on the outside margin of the page
26 such as the one that accompanies this paragraph.
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Preamble

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4 In response to public comment, the U.S. Department of Energy (DOE) has changed the
5 name of this environmental impact statement (EIS) from the *Hanford Remedial Action*
6 *Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-EIS) to the
7 **Hanford Comprehensive Land-Use Plan EIS (HCP EIS)**. In the Notice of Intent in 1992,
8 establishing future land uses was listed as one of the HRA-EIS objectives. Since that time,
9 various considerations have led to this Final HCP EIS in which future land use is now the EIS's
10 main objective. To reflect this reduction in scope from the 1996 Draft HRA-EIS, DOE solicited
11 comments on the proposed name change (as well as the contents), and in response to
12 comments has changed the name to the HCP EIS.
13

14 Originally, this EIS was intended to provide an environmental review under the *National*
15 *Environmental Policy Act of 1969* (NEPA) for all aspects of the developing Hanford
16 Environmental Restoration Project. The document, however, no longer directly considers
17 remediation issues. Instead, remediation issues are now integrated into specific Tri-Party
18 Agreement remediation decision documents. Remediation decisions are made by the U.S.
19 Environmental Protection Agency and the State of Washington, as lead regulatory agencies, and
20 DOE as lead implementing agency. The DOE does expect that the EIS process will assist
21 Hanford remediation efforts by determining reasonably foreseeable land uses and establishing
22 land-use decision-making processes to ensure the viability of any future institutional control that
23 might be required.

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Acronyms and Initialisms

1			
2			
3			
4	ac	acres	
5	AEA	<i>Atomic Energy Act</i>	
6	AEC	Atomic Energy Commission	
7	ALE	Fitzner/Eberhardt Arid Lands Ecology Reserve	
8	AMP	area management plan	
9	ATG	Allied Technology Group	
10	BLM	Bureau of Land Management	
11	BoR	Bureau of Reclamation	
12	BPA	Bonneville Power Administration	
13	BRMA	B Reactor Museum Association	
14	BRMaP	Biological Resources Management Plan	
15	BRMiS	Biological Resources Mitigation Strategy Plan	
16	CAA	<i>Clean Air Act of 1970</i>	
17	CAAA	<i>Clean Air Act Amendments of 1990</i>	
18	CBC	Columbia Basin College	
19	CBRP	Columbia Basin Reclamation Project	
20	CCP	Comprehensive Conservation Plan	
21	CEQ	Council on Environmental Quality	
22	CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>	
23	CFR	<i>Code of Federal Regulations</i>	
24	CLUP	comprehensive land-use plan	
25	CRADA	Cooperative Research & Development Agreement	
26	CRMP	Cultural Resources Management Plan	
27	CTUIR	Confederated Tribes of the Umatilla Indian Reservation	
28	D&D	decontamination and decommissioning	
29	DCGL	derived concentration guide level	
30	DOE	U.S. Department of Energy	
31	DOH	Department of Health (State of Washington)	
32	DOI	U.S. Department of the Interior	
33	DSTs	double-shell tanks	
34	DWS	drinking water standard	
35	Ecology	Washington State Department of Ecology	
36	EIS	environmental impact statement	
37	EM	Environmental Management	
38	EMSL	Environmental Molecular Sciences Laboratory	
39	Energy	formerly known as the Washington Public Power Supply System (WPPSS)	
40	Northwest		
41	EPA	U.S. Environmental Protection Agency	
42	EPZ	emergency planning zone	
43	ERDF	Environmental Restoration Disposal Facility	
44	ERWM	(Nez Perce Tribe) Environmental Restoration and Waste Management (Program)	
45	ESU	Evolutionary Significant Units	
46	EUZ	exclusive-use zone	
47	FFCA	<i>Federal Facilities Compliance Act of 1992</i>	

1	FFTF	Fast Flux Test Facility
2	FLEFA	<i>Federal Land Exchange Facilitation Act of 1988</i>
3	FLPMA	<i>Federal Land Policy and Management Act of 1976</i>
4	RI/FS	remedial investigation/feasibility study
5	FONSI	finding of no significant impact
6	Working Group	Future Site Uses Working Group
7	GIS	Geographic Information System
8	GMA	<i>Growth Management Act</i>
9	GSA	General Services Administration
10	ha	hectares
11	HAB	Hanford Advisory Board
12	HAMMER	Hazardous Materials Management and Emergency Response
13	HAP	hazardous air pollutants
14	HCP EIS	<i>Hanford Comprehensive Land-Use Plan Environmental Impact Statement</i> (formerly named the <i>Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan</i> [HRA-EIS])
15	HCRL	Hanford Cultural Resources Laboratory
16	HEHF	Hanford Environmental Health Foundation
17	HGIS	Hanford Geographic Information System (database)
18	HMS	Hanford Meteorological Station
19	I&I	irreversible and irretrievable
20	ICBEMP	Interior Columbia Basin Ecosystem Management Project
21	ILCR	incremental lifetime cancer rate
22	INEEL	Idaho National Engineering and Environmental Laboratory
23	km ²	square kilometers
24	LIGO	Laser Interferometer Gravitational-Wave Observatory
25	LLW	low-level waste
26	MCL	maximum contamination level
27	MEI	maximally exposed individual
28	mi ²	square miles
29	MMI	Modified Mercalli Intensity
30	MOA	Memorandum of Agreement
31	MTCA	<i>Model Toxics Control Act of 1989</i>
32	MOX	mixed oxide
33	NAAQS	National Ambient Air Quality Standards
34	NARM	naturally occurring and accelerator-produced radioactive materials
35	NCO	NEPA Compliance Officer
36	NCP	National Contingency Plan
37	NEPA	<i>National Environmental Policy Act of 1969</i>
38	NERP	National Environmental Research Park
39	NOA	Notice of Availability
40	NOI	Notice of Intent
41	NPA	<i>Northwest Power Act</i>
42	NPDES	National Pollutant Discharge Elimination System
43	NPL	National Priorities List
44	NPPC	Northwest Power Planning Council
45	NPS	U.S. National Park Service
46	NWR	National Wildlife Refuge

1	ORP	Office of River Protection (formerly Tank Waste Remediation System [TWRS])	
2	OSHA	Occupational Safety and Health Administration	
3	PCB	polychlorinated biphenyl	
4	PFP	Plutonium Finishing Plant	
5	PNNL	Pacific Northwest National Laboratory	
6	PSD	Prevention of Significant Deterioration	
7	PUD	Public Utility District	
8	PUREX	Plutonium-Uranium Extraction	
9	R&D	research and development	
10	RCRA	<i>Resource Conservation and Recovery Act of 1976</i>	
11	RCW	<i>Revised Code of Washington</i>	
12	REO	Real Estate Officer	
13	RL	(U.S. Department of Energy) Richland Operations Office	
14	RMP	resource management plan	
15	ROD	Record of Decision	
16	SALDS	state-approved land disposal structure	
17	SARA	<i>Superfund Amendments and Reauthorization Act of 1986</i>	
18	SDWA	<i>Safe Drinking Water Act of 1974</i>	
19	SEPA	<i>State Environmental Policy Act of 1971</i>	
20	SHPO	State Historic Preservation Office	
21	SMB	Site Management Board	
22	SPAB	Site Planning Advisory Board	
23	SRS	Savannah River Site	
24	SSTs	single-shell tanks	
25	TAP	toxic air pollutants	
26	THPO	Tribal Historic Preservation Officer	
27	TPA	Tri-Party Agreement	
28	TRIDEC	Tri-City Industrial Development Council	
29	TSCA	<i>Toxic Substances Control Act of 1976</i>	
30	TSD	treatment, storage and disposal	
31	TSP	total suspended particulates	
32	TWRS	Tank Waste Remediation System (now known as the Office of River Protection [ORP])	
33	UBC	Uniform Building Code	
34	USACE	U.S. Army Corps of Engineers	
35	USFWS	U.S. Fish and Wildlife Service	
36	VOC	volatile organic compound	
37	WAC	<i>Washington Administrative Code</i>	
38	WCAA	<i>Washington Clean Air Act of 1991</i>	
39	WDFW	Washington Department of Fish and Wildlife	
40	WIDS	Waste Information Data System (database)	
41	WNP-2	Washington Nuclear Plant Number 2	
42	WSU-TC	Washington State University - Tri-Cities	
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